

Appl. No.: 10/707,642
Amdt. Dated: 10/18/2005
Reply to Office action of: 09/22/2005

AMENDMENTSTOTHE SPECIFICATION:

Kindly replace paragraph [0012] with the following amended paragraph:
[0012] In keeping with the operations for implementing this invention, after the first detection of temperature increase in at least one of the switches, the microcontroller places said switch in open circuit, waits a certain time to see if the anomaly has disappeared, and if this persists, the microcontroller orders the short-circuiting of the shunt circuit, so as to ~~provoke~~ cause complete opening and isolation from the circuit of the group of FET type switches and their loads dependent on the power supply. This constitutes a good example of the "intelligence" which provides the control with use of digital control rather than analogue control such as that discussed in the background above.

Kindly replace paragraph [0016] with the following amended paragraph:
[0016] As the mentioned figures show, the active safety circuit with loads protected by solid state relays of the invention generally comprises a group of loads (not shown) fed through solid state relays 1, 2, 3 (schematized by means of a switch), controlled in turn from a unit such as a microcontroller 4 ~~which is prepared for provoking~~ capable of causing the opening of said relay(s) 1, 2 and 3, in case an anomaly should occur in said loads, comprising a current breaking device 5 inserted in a power supply network 6 to said solid state relay(s) 1, 2, 3 and a grounded shunt line 7 from point 8 of said power supply network, placed between the breaking device 5 and said solid state relay(s) 1, 2, 3, and a safety switch 9 governed by said microcontroller 4 and inserted in said grounded shunt line 7. According to the principles of the invention, a temperature detector 10 is provided, either associated to each solid state relay 1, 2, 3 (example of figure 2) or commonly shared by several of said solid state relays 1, 2, 3 (example of figure 1), and connected to said microcontroller 4.

Kindly replace paragraph [0017] with the following amended paragraph:
[0017] Operation of the circuit is as follows: the microcontroller 4 sequentially checks the state of said temperature detector 10 or detectors 10, 10a, 10b to open, if an anomaly in temperature is produced, the corresponding solid state relays 1, 2, 3 (in the case of a

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dedicated detector being used for each relay 1, 2, 3) and , if the problem persist, to close said controlled safety switch 9, so as to short-circuit to ground said power supply network 6 by means of the grounded shunt line 7, actuating said breaking device 5 and thus ~~preventing~~ causing the disconnection of said solid state relay and its corresponding set of associated loads, with respect to a power source.